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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

INVENTOR: Dan Kikinis  
CASE: P1523CIP  
SERIAL NO.: 08/811,648  
FILED: 03/5/97  
SUBJECT: Apparatus and Methods for Providing Home Networking  
for Single and Multimedia Electronic Devices

GROUP ART UNIT: 2152

EXAMINER: Vaughn Jr. W

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**PARTY IN INTEREST:** All inventions in the disclosure in the present case are assigned to or assignable to:  
Lextron, Inc.

**THE COMMISSIONER OF PATENTS AND TRADEMARKS**  
**WASHINGTON, D.C. 20231**

SIR:

**APPEAL BRIEF**

**37 C.F.R 1.192(c)(1) Real Party in Interest**

The real party in interest is the party named above in the caption of the brief, Lextron, Inc.

**37 C.F.R 1.192(c)(2) Related Appeals and Interferences**

This is an appeal from the action of the Primary Examiner dated 09/06/01 finally rejecting claims 1-4, 7-9 and 13-16, the only pending claims in the application. There are no related appeals or interferences in the instant case.

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### **37 C.F.R 1.192(c)(3) Status of the Claims**

Claims 1-4 were submitted with the original patent application USSN 08/811,648 filed on March 05, 1997. Claims 1 and 3 were amended, and a new title was proposed in appellant's Amendment filed 05/05/99 in response to the first action in the case, accorded Paper No. 2 and mailed 01/15/99. Claims 1 and 3 were further amended in appellant's Preliminary Amendment filed 10/29/99 accompanying a Continuing Prosecution Application (CPA), in response to the Final action mailed 06/29/99, and accorded Paper No. 5. Claims 1 and 3 were further amended, and claims 5-12 were added for examination in appellant's Amendment C filed 03/01/2000 in response to a non-final action mailed 12/06/99. Claims 1, 3, 5, 7, and 10 were amended in appellant's Preliminary Amendment filed 10/02/2000, accompanying a second CPA, in response to the Final action mailed in the case on 06/02/2000, and accorded Paper No. 11. Claims 5-6 and 10-12 were cancelled, and claims 13-16 were added for examination in appellant's Amendment D filed 06/20/2001, in response to the non-final action mailed 12/20/2000. In that amendment, the claims were incorrectly numbered by appellant, in that the amendment called for canceling claims 1-13 and adding claims 14-17, when in fact there were only 12 claims standing at the time. The Examiner correctly renumbered the claims to cancel claims 1-12, and add new claims 13-16. Therefore claims 1-4, 7-9, and 13-16 in their last-amended form are left standing for examination and have been maintained in that amended form until the present Appeal.

**37 C.F.R 1.192(c)(4) Status of Amendments**

Following is a chronological listing of Office actions and Amendments filed in the instant case:

1. Case filed with claims 1-4 on 03/05/97, case accorded USSN 08/811,648.
2. First non-final action mailed 01/15/99 rejecting claims 1-4.
3. Response filed 05/05/99 amending claims 1 and 3.
4. Final action mailed 06/29/99 rejecting claims 1-4.
5. Response to final as a Preliminary amendment filed with CPA on 10/29/99.
6. Non-final action rejecting claims 1-4 mailed on 12/06/99.
7. Response amending claims 1-3 and adding claims 5-12 filed 03/01/2000.
8. Final action mailed 06/02/00 rejecting claims 1-12.
9. Preliminary amendment filed 10/02/2000 with second CPA in response to Final action, amending claim 1, 3, 5, 7, and 10.
10. Non-final action mailed 12/20/2000 rejecting claims 1-12.
11. Response filed 06/20/2001 canceling claims 5-6 and 10-12, and adding claims 13-16, although added claims were mis-numbered as 14-17.
12. Final action rejecting claims 1-4, 7-9, and 13-16 mailed 09/06/01.
13. Notice of Appeal filed 01/03/2002.

As of the time of this Appeal Brief, claims 1-4, 7-9, and 13-16 as last amended stand for decision on appeal from the examiner's Final rejection made on September 06, 2001.

### **37 C.F.R 1.192(c)(5) Summary of the Invention**

The invention is a system and method of providing a multimedia data distribution system comprising a distribution system using existing telephone wiring available in most homes and businesses for distributing and delivering Asynchronous Transfer Mode signals to the level of an individual home network bus. A bridge adapter unit is provided having an inlet port for receiving public network protocol signals. The telephone wiring structure includes multiple end points and one or more junctions connected at a single point to an outlet port of the bridge adapter unit. The bridge adapter unit drives the pre-existing telephone wiring structure according to a Local Area Network (LAN) protocol, translates the public network protocol signals to the LAN protocol, and modulates the signals in a manner to correct signal variations at the end points due to having multiple end points driven from a single point at the bridge adapter unit.

The system may also include one or more converters connected at individual ones of the end points of the telephone wiring, the one or more converters comprising each an outlet port to connect to a single-media or a multi-media device, the converters converting the LAN signals to a form required by the single-media or multi-media device. The single-media and multi-media electronic devices may include one or more of telephones, personal computers, fax machines, and televisions running through set top boxes. Individual ones of the converters may be internal modules or actually integrated into individual ones of the single-media or multi-media devices.

### **37 C.F.R 1.192(c)(6) Issues**

Whether the Examiner in the present case makes a proper rejection of claims 1 and 7 as unpatentable over the multimedia data distribution system of Humpleman. Appellant asserts that Humpleman fails to teach or suggest that the data distribution system is a pre-existing existing telephone network at the home or business as claimed. Appellant believes the Examiner has so far neglected to adequately consider the nature of the wiring system in the user site, onto which signals are driven.

Whether the Examiner correctly interprets the art of Bingel, disclosing a bridge adapter including a single inlet port, and when combined with Humpleman, obviates appellant's independent claims. Finally, whether the Examiner correctly interprets the art of Timm as disclosing a bridge unit at the home or business between the public network and an internal network of the home or business, transferring data between the public and internal network and using at least a portion of the data to configure addresses for the clients, and the combination of Timm Bingel and Humpleman obviates appellant's invention as claimed.

### **37 C.F.R 1.192(c)(7) Grouping of Claims**

The claims stand or fall together, and no grouping of separately patentable claims is presented.

### 37 C.F.R 1.192(c)(8) Argument

In paper 20 the Examiner reasserted the 103(a) rejection of claims 1-4 as being unpatentable over Humpleman, duplicating the prior rejection presented in paper 16. The Examiner did not consider the new language of the amended claims in paper 20. Appellant's amended claim 1 specifically recites a telephone wiring structure in the site, the wiring structure having multiple end points and one or more junctions, and connected at a single point to an outlet port of the bridge adapter unit. Humpleman fails to disclose or suggest these specific limitations of appellant's claim.

The Examiner reasserts the 103(a) rejection of claims 5-12 in paper 20, again duplicating the previous rejection of paper 16 even though claims 5-6, and 10-12 were canceled in the Amendment filed just prior to paper 20. Claims 13-16 are rejected by the Examiner stating that the limitations are taught in the figures of Humpleman, Bingel and Timm, although no formal rejection was made against these claims in paper 20.

#### The Examiner's Arguments:

Regarding claims 1, the Examiner states that Humpleman discloses a multimedia data distribution system comprising: a distribution system distributing and delivering public network protocol signals to the level of an individual asymmetric star home network bus (Humpleman teaches a switching hub that enables special treatment for heavily asymmetric traffic, e.g. compressed digital video and Internet data by directly routing these cases from transmitter to receiver), [Fig. 1, Col. 5, lines 42-67 and Col. 6, lines 1-27], and a bridge adapter

unit connected to the distribution system and to the asymmetric star wiring home network bus (Humbleman teaches that the system allows for local peripheral network that can be connected by a gateway to the internal network for interoperability), [Col. 4, lines 20-26].

Appellant's claim language recited in claim 1 specifically limit the claim to a bridge adapter unit having an inlet port for receiving public network protocol signals and a telephone wiring structure in the site, the wiring structure having multiple end points and one or more junctions, and connected at a single point to an outlet port of the bridge adapter unit.

The patentable heart of claim 1 is the positively-recited "telephone wiring structure", and the way in which the bridge adapter unit drives the wiring structure. The value of the present invention is in the fact that the bridge adapter unit can be connected to an existing telephone wiring structure in a home or business, and re-wiring of the home or business is not required. This is unarguably a significant advantage.

Appellant wishes to focus the Board's attention on the recited wiring structure and the way it is driven, because it is precisely these limitations that are not taught in any of the art that the Examiner has relied upon and applied. To avoid confusion, in amended claim 1 the appellant has specifically described the wiring structure as having a single starting point at the bridge adapter unit and multiple end points, having therefore one or more junctions, rather than using words of art like "Asymmetric Star".

Further, appellant respectfully asserts that a prima-facie 103 rejection must show these limitations in the art. The Examiner thus far has not shown these limitations in the art, and indeed, the art now cited and applied does not show these limitations. For example, the teaching of Humbleman very specifically shows a Hub 38, with a separate cable running to each room in the house. This is

specifically what the present invention was made to overcome. See for example, Humpleman, col. 4, beginning at line 48. A separate twisted pair cable is run from hub 38 to each room in the house, that is, to each outlet. This is not the branched structure specifically recited in claim 1. Humpleman refers in this same passage to the installation of the cables runs, and the labor cost, which is precisely what the present invention is made to overcome.

Further description in Humpleman at col. 5, line 44, further solidifies the fact that the Humpleman system has multiple runs fanning out from hub 38 in a Star topology. Please be aware that hub 38 is a "Switched hub". This is not a junction as claimed. This is abundantly clear from the description in Humpleman from line 44 of col. 5 to line 3 of col. 6.

The Examiner states that Humpleman teaches a bridge adapter unit that translates between the public protocol and the Local Area Network (LAN) protocol using hi-frequency modulated network signals on the asymmetric star wiring home network bus, and manages the asymmetric wiring home network bus as a non-isochronous type bus (well known). Appellant's claim 1 recites the limitation that the bridge adapter unit drives the telephone wiring structure according to a Local Area Network (LAN) protocol, translates the public network protocol signals to the LAN protocol, and modulates the signals in a manner to correct signal variations at the end points due to having multiple end points driven from a single point at the bridge adapter unit.

Having established that the wiring structure in the user site is fundamentally different in claim 1 from Humpleman, the Board's attention is drawn to the functional limitations in claim 1, which provide the ingredient that allows appellants system to work with an existing telephone wiring structure, while Humpleman's system will not. Specifically, appellant *modulates the signals in a manner to correct signal variations at the end points due to having multiple*



*end points driven from a single point at the bridge adapter unit.*

There is specifically no teaching in Humpleman to modulation to correct signal variations at the end points. There is no need in Humpleman, because the pre-existing telephone wiring is not used in Humpleman, as it is in the appellant's invention as recited in claim 1, and a whole new cabling system is installed in Humpleman. Humpleman's system simply will not operate on the existing telephone wiring of the site, which is precisely why Humpleman teaches complete re-wiring of the site.

#### The § 103 (a) Rejection Over Humpleman

Appellant asserts that a proper rejection, under 35 U.S.C. 103, cannot be made by applying a different structure (different invention), that accomplishes the same or a similar purpose. The Examiner's assertions of how Humpleman receives public network signals and converts them in the site to drive the media devices has no weight in a rejection. The invention is not in what is accomplished, but in how, and with what it is accomplished. The Examiner, under the law, is constrained to deal with the claimed subject matter.

Appellant therefore asserts once again that the rejections made do not form a prima facie case against claim 1, as the wiring structure as claimed, and the way it is driven, have not been shown in teachings in the art, specifically not in Humpleman. Appellant asserts that claim 1 as amended is patentable over the art cited and applied, taken either singly or in combination, as the patentable features recited in claim 1, as clearly listed above, are not taught in the art.

Claims 2, 3, and 4 are therefore patentable at least as depended from a patentable claim, and on their merits as well.

The § 103 (a) Rejection Over Humpleman in view of Bingel, and further in view of Timm

The Examiner states that claims 5-12 are rejected as being unpatentable Over Humpleman-Bingel as applied to claims 1-4, and further in view of Timm. Confusion occurs at this point because Bingel was not used in combination with Humpleman in the rejection of claims 1-4 of the Examiner's paper 20. Independent method claim 7 corresponds to independent claim 1. Unfortunately, because the Examiner did not address the amended claim language in paper 20, Timm was applied in the rejection to limitations that no longer exist in appellant's claims.

Page 4, item 6 of the Examiner's paper 20 does state that Bingel discloses an analogous art (e.g. data communication and telephony). The Examiner states that Bingel discloses a bridge adapter unit that has a single inlet port (Bingel teaches a customer premise wiring is connected to a telephone line by way of a network interface that breaks off into a multiple group of connections (modem (e.g. DSL, ADSL, SDSL, etc), [see Bingel, Col. 6, lines 1-40]. Accordingly the Examiner continues, it would have been obvious to have incorporated the Bingel's teachings of data communications and telephony with the teachings of Humpleman's for the purpose of economically deployment of DSL, ADSL, SDSL, etc, communication channel simultaneously in combination with a POTS communication on a telephone connection.

Bingel teaches a plurality of first communications devices (e.g., telephones or other POTS devices) at various sites in a premise, which are as an example, connected to a telephone connection by way of a respective plurality of passive distributed filters. Each distributed filter comprises a passive automatic control mechanism and a passive first channel filter (e.g., a POTS filter). The first

channel filter is a one-to-one port device, unlike conventional POTS splitters, which are generally one-to-two port devices. The automatic control mechanism is configured to isolate the first channel filter when a respective first communications device is inactive (on-hook). Further, the distributed filter is configured to interface communications on a first channel (e.g., POTS) on the telephone connection with the respective first communications device when the first communications device is active (off-hook). Moreover, a second communications device (e.g., an DSL, ADSL, SDSL, RADSL, or VADSL modem) is connected to the telephone connection and communicates signals over a second channel (e.g., DSL, ADSL, SDSL, RADSL, VADSL, etc.), simultaneously with the first channel. As a result of the invention, an inexpensive passive distributed filter associated with each POTS device prevents on-hook/off-hook transitions from interfering with the second channel communications.

Appellant asserts that Bingel's disclosure of a passive distributed filter system enabling decoupling of first and second simultaneous communication channels, particularly a POTS channel on a telephone connection, cannot be combined with Humpleman in order to read on appellant's claimed invention. Bingel's invention cannot deal with a LAN protocol. Bingel discloses a two channel communication line for POTS telephony and modem communications (e.g. DSL, ADSL etc.). Bingel's NI 37 is not a bridge adapter unit as claimed. Bingel does not convert protocols from a LAN as claimed. Appellant believes there is no motivation to combine.

In conclusion, it is respectfully submitted that the very limited prior art provided by the USPTO in this case, essentially fails to teach or suggest an existing telephone wiring structure or equivalent, and the way in which the bridge adapter unit drives the wiring structure. The value of the present invention is in

the fact that the bridge adapter unit can be connected to an existing telephone wiring structure in a home or business, and re-wiring of the home or business is not required. This is unarguably a significant advantage.

In addition to the arguments and amendments presented herein, the appellant has caused to be filed with the most recent Amendment filed, a Declaration by an expert in the art, Mr. Michael Potel Ph.D., who has extensive academic and experiential credentials detailed in the Declaration, attesting to specific teachings of Humpleman, in particular, and to the appellant's invention, to aid in the prosecution. The Examiner states, with regards to Appellant's declaration, it is noted but self-serving and deviates from estoppel practice. It is appellant's understanding that Declarations were to be examined with reasonable diligence in the examination process. Accordingly, appellants respectfully request that the Board reverse the Final rejection of claims 1-4, 7-9, and 13-16 and hold them allowable.

**37 C.F.R 1.192(c)(9) Appendix**

The following are the claims involved in the Appeal:

1. (Amended) A networking system for a home or business site, comprising:
  - a bridge adapter unit having an inlet port for receiving public network protocol signals; and
  - a telephone wiring structure in the site, the wiring structure having multiple end points and one or more junctions, and connected at a single point to an outlet port of the bridge adapter unit;characterized in that the bridge adapter unit drives the telephone wiring structure according to a Local Area Network (LAN) protocol, translates the public network protocol signals to the LAN protocol, and modulates the signals in a manner to correct signal variations at the end points due to having multiple end points driven from a single point at the bridge adapter unit.
2. (Amended) The networking system of claim 1 further comprising one or more converters connected at individual ones of the end points, the one or more converters comprising each an outlet port to connect to a single-media or a multi-media device, the converters converting the LAN signals to a form required by the single-media or multi-media device.
3. (Amended) The networking system of claim 2 further comprising one or more single-media or multi-media devices connected to one or more of the converters.
4. (Amended) The networking system of claim 3 wherein the single-media and multi-media electronic devices include one or more of telephones, personal

computers, fax machines, and televisions running through set top boxes.

7. (Amended) A method for implementing a networking system, comprising the steps of:

- (a) delivering public network protocol signals to the level of a home or business site;
- (b) installing a bridge adapter unit having an inlet port for the public network protocol signals at the site;
- (c) connecting a telephone wiring structure having multiple end points and one or more junctions, at a single point to an outlet port of the bridge adapter unit;
- (d) driving the telephone wiring structure according to a Local Area Network (LAN) protocol by the bridge adapter unit, translating the public network protocol signals into the LAN protocol; and
- (e) modulating the signals in a manner to correct variations at the end points due to having multiple end points driven from the single point at the bridge adapter unit.

8. (Amended) The method of claim 7 comprising a further step installing one or more converters connected at individual ones of the end points, the one or more converters comprising each an outlet port to connect to a single-media or a multi-media device, the converters converting the LAN signals to a form required by the single-media or multi-media device.

9. (Amended) The method of claim 8 wherein, in the further step, the single-media or multi-media devices include one or more of telephones, personal computers, fax machines, and televisions running through set-top boxes.

13. (Added) The networking system of claim 3 wherein individual ones of the converters are integrated into individual ones of the single-media or multi-media devices.

14. (Added) The networking system of claim 3 wherein individual ones of the converters are internal modules of individual ones of the single-media or multi-media devices.


15. (Added) The method of claim 8 wherein individual ones of the converters are integrated into individual ones of the single-media or multi-media devices.

16. (Added) The method of claim 8 wherein individual ones of the converters are internal modules in individual ones of the single-media or multi-media devices.

If any additional time extensions are required beyond any extension petitioned with this Appeal Brief, such extensions are hereby requested. If there are any fees due beyond any fees paid with this Appeal Brief, authorization is given to deduct such fees from deposit account 50-0534.

Respectfully Submitted,

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